**Course: Math 8 CCSS Standard Number(s): 8.EE.4 Day: 19**

**Unit # and Title: Unit One – Expressions and the Number System Block(s)/Period(s): 1 2 3 4 5 6**

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| **Unit Essential Question(s):** | **When you use the properties of integer exponents?** | | |
| **Learning Target(s)**  **“I can statements”** | **I can make sense of numbers in scientific notation generated by technology.** | | |
| **Essential Vocabulary** | **Exponent**  **Expression**  **Integer**  **Number line**  **Power of ten**  **Scientific notation**  **Standard form**  **Truncate**  **Asterisks** | | |
| **Resources and Materials** | **Teacher** | | **Student** |
| **Questions for the calculator scavenger hunt**  **Calculator questions**  **Displayed Number Line**  **Power Point**  **Interwrite Pad**  **CompuCart**  **Glencoe C3 Lessons: 2-9**  **On Core Lessons: 1-2**  **Math’scool Lesson** [5.7](https://gems.gcsnc.com/lvcontentitems_23/lvContentItems_23/DispForm.aspx?ID=1670)  **Algebra’scool Lesson** [11.2](https://gems.gcsnc.com/lvcontentitems_23/lvcontentitems_23/dispform.aspx?id=1305)  **Holt McDougal Lesson 3-4**  [1-Teacher Notes 5.7.pdf](https://gems.gcsnc.com/lvcontentitems_23/lvContentItems_23/Attachments/1670/1-Teacher%20Notes%205.7.pdf) | | **Calculators**  **Student tool kit** |
| **8 Mathematical Practices:** | | | |
| 1. Make sense of problems and persevere in solving them.  2. Reason abstractly and quantitatively.  3. Construct viable arguments and critique the reasoning of others.  4. Model with mathematics. | | 5. Use appropriate tools strategically.  6. Attend to precision.  7. Look for and make use of structure.  8. Look for and express regularity in repeated reasoning. | |
| **Activating Strategy**  **(Opening Activity)** | **Students will complete WARM UP questions displayed in power point, on the screen. (review questions relating to previous lessons)**  **Students will complete a teacher created calculator exploration (Calculator Scavenger Hunt). They will then answer teacher’s questions regarding calculator key strokes.** | | |
| **Cognitive Teaching Strategies**  **Me/We/Few/You**  **(TIP-Teacher input**  **SAP-Student actively participates**  **GP – Guided Practice**  **IP-Independent Practice)** | **Students will be given five expressions in Scientific Notation, and asked to enter them in the calculator, and write down the exact value given to them by the calculator. Students will then interpret what is displayed on the calculator in standard form. (What does the “E” mean?)**  **Students will complete OPEN NOTES from the teacher generated power point, containing word problems using scientific notation, including vocabulary and examples and guided practice.**  **Students complete independence practice in small groups or pairs.**  **We will use the student workbook page 13 (example 3) to get more practice using the calculator.**  **Students will be asked to explain their answers to the rest of the class.**  **When this is completed, students will work on Pizzazz (pre-algebra) sheets pages 75-77 using both the calculator and working by hand.** | | |
| **Summarizing Strategy**  **(Closing Activity)** | **Five Question Quiz - The first two students with all five correct, receive a reward.** | | |
| **Assessment/Homework** | **Students will find a large or small number, that can written in scientific notation, from newspaper, magazine, or online, and bring to class the next day.** | | |
| **Extending/Refining** | [Writing Numbers Between 0 and 1 in Scientific Notation:  Student Logbook and Your Turn - English](http://downloads.hmlt.hmco.com/EdSchool/LMS4Resources/Print/MSC5/DMMSC5-3.2.3.PDF)  [Answer Key - page 206 - English](http://downloads.hmlt.hmco.com/EdSchool/LMS4Resources/Print/MSC5.pdf) | | |